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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,020	05/06/2004	Eric G. Lundquist	A01501	9631
21898	7590	08/16/2004	EXAMINER	
ROHM AND HAAS COMPANY PATENT DEPARTMENT 100 INDEPENDENCE MALL WEST PHILADELPHIA, PA 19106-2399			ZALUKAEVA, TATYANA	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/840,020	Applicant(s) LUNDQUIST ET AL.	
	Examiner Tatyana Zalukaeva	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-9 are rejected under 35 U.S.C. 102(e) as anticipated by Pascault et al (U.S. 6,586,097).

Pascault discloses method of dispersion polymerization to produce crosslinked nanoparticles with the sizes of 10-300 nm (abstract, col.2, lines 24-31). The steps of the process are depicted in col.7, lines 54-67, col.8, lines 1-15. The polymerization process can be continuous or batch (col.9, lines 63-65, col.10, lines 33-36). When the process is a batch process, then there is always inherently and necessarily some amount of time interval between the addition of different portions of reactants.

Example 1 in col.13 provides for the process, wherein all the requirements of the instant claims are met. The solids contents of the solution shows the 95% or greater. All the monomers and additives are readable on the limitations of the instant claims 1-9. Not only the process steps are met by Pascault, but the limitations of the product per se, as per claim 7. With specific regard to claim 4, the table in lines 30-40 of example 1 shows the addition of octadecyl acrylate and methyl methacrylate in aliquots.

6. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Rody et al (U.S. 4,894,339).

Rody discloses process for preparation of nanoparticles (abstract) by dispersion polymerization (col.38, lines 60-64). Particle have sizes between 0.01-20 micron that meets the limitations of the claimed range in nm (1nm=0.001 micron). Examples on production of crosslinked polymer nanoparticles, such as Example 4, for instance, provides for 30 minutes delay between feeding of different portions of reagents, as per instant claim10, provides all the steps and reagents as per instant claims, and results in the solids content of 40%. Thus the limitations of the instant claims are met in terms of the process, and the product obtained by the claimed process.

7. Claims 1-10 are rejected under 35 U.S.C. 102(a/e) as being anticipated by or in the alternative as unpatentable over Krom et al (U.S. (U.S. 6,437,050).

Krom discloses a process of making crosslinked nanoparticles by dispersion polymerization process, with the diameter of resulting particles of less than 100 nm (abstract, col.4, line 20, claim 15), wherein the aliquots of reactatns are added during polymerization process (col.4, lines 10-15, and 55-64). The batch polymerization is used (Example 3 in col.6). The disclosure of Krom does not specify the solids content, however, since the particles are essentially the same as the instantly claimed ones and are made by essentially the same process as instantly claimed , the property bill be inherently met *Note In re Best*, 195 USPQ 430,433 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102 or *In re Spada*, 15 USPQ2nd 1655(Fed.Cir. 1990), stating that the burden

falls on the Applicant to establish by effective argument and/or objective evidence that the claimed invention distinguishes over the reference.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pascault et al (U.S. 6,586,097).

Pascault does not specify the interval of 1 second or more between the final and pervious feeds of reactants. However, since the process of Pascault is a batch process, and since the time interval necessarily exists between the feeds, it would have been obvious to those skilled in the art to adjust the time for any interval larger than 1 second via routine experimentation and thus to arrive at the instant claim 10.

9. Other prior art of record cited in PTOL-892 describes crosslinked nanoparticles that have the parameters within the claimed ranges. These references could have also been used for 102 or 103 rejections, but have not been cited in the rejections at the present time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva
Primary Examiner
Art Unit 1713

August 12, 2004

